### **CENTER FOR DRUG EVALUATION AND RESEARCH**

Application Number 21-113

MICROBIOLOGY REVIEW(S)

NOV 1 9 1999

### REVIEW FOR HFD-510 OFFICE OF NEW DRUG CHEMISTRY MICROBIOLOGY STAFF MICROBIOLOGIST'S REVIEW #2 OF NDA 21-113 3 November 1999

A. 1. NDA 21-113 BC

APPLICANT: Bedford Laboratories 300 Northfield Road Bedford, OH 44146

2. PRODUCT NAMES: Pamidronate Disodium, Injection

- 3. DOSAGE FORM AND ROUTE OF ADMINISTRATION:
  The product is provided in single-dose 10 mL vials containing 3 mg/mL of the active drug ingredient.
- 4. METHODS OF STERILIZATION: The product is terminally sterilized.
- 5. PHARMACOLOGICAL CATEGORY and/or PRINCIPLE INDICATION:

The product is indicated for the treatment of moderate or severe hypercalcemia associated with malignancy, with or without bone metastases.

- B. 1. DATE OF INITIAL SUBMISSION: 26 February 1999
  - 2. DATE OF AMENDMENT: 21 May 1999 (Subject of this Review)
  - 3. REFERENCE LISTED PRODUCT/MANUFACTURER: Aredia® Novartis (see C. REMARKS, below)
  - 4. ASSIGNED FOR REVIEW: 28 October 1999
- C. REMARKS: The drug product is compounded, filled, sealed, terminally sterilized, labeled and packaged at Ben Venue Laboratories, Inc., 300 Northfield Road, Bedford, OH.

The cited reference listed product (see B.3., above) is a lyophilized formulation. The reason for citing this product is unclear since this is a New Drug Application rather than a

Generic Application. It may be that the reference drug application (NDA 20-036) contains the clinical data that apply to this application.

This amendment provides for an additional dosage form, which is 9 mg/mL; 10 mL/vial.

D. CONCLUSIONS:

The application is recommended for approval on the basis of sterility assurance.

Paul Stinavage, Ph.D.

cc: Original NDA 21-113 HFD-510/R. Hedin/S. Markofsky HFD-805/Consult File/Stinavage

> Drafted by: P. Stinavage, 3 November 1999 R/D initialed by P. Cooney

> > APPEARS THIS WAY ON ORIGINAL

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### REVIEW FOR HFD-510 OFFICE OF NEW DRUG CHEMISTRY MICROBIOLOGY STAFF MICROBIOLOGIST'S REVIEW #1 OF NDA 21-113 13 April 1999

A. 1. NDA 21-113

APPLICANT: Bedford Laboratories 300 Northfield Road Bedford, OH 44146

- 2. PRODUCT NAMES: Pamidronate Disodium, Injection
- 3. DOSAGE FORM AND ROUTE OF ADMINISTRATION: The product is provided in single-dose 10 mL vials containing 3 mg/mL of the active drug ingredient.
- 4. METHODS OF STERILIZATION: The product is terminally sterilized.
- 5. PHARMACOLOGICAL CATEGORY and/or PRINCIPLE INDICATION:

The product is indicated for the treatment of moderate or severe hypercalcemia associated with malignancy, with or without bone metastases.

- B. 1. DATE OF INITIAL SUBMISSION: 26 February 1999
  - 2. DATE OF AMENDMENT: (none)
  - 3. REFERENCE LISTED PRODUCT/MANUFACTURER: Aredia® - Novartis (see C. REMARKS, below)
  - 4. ASSIGNED FOR REVIEW: 31 March 1999
- C. REMARKS: The drug product is compounded, filled, sealed, terminally sterilized, labeled and packaged at Ben Venue Laboratories, Inc., 300 Northfield Road, Bedford, OH.

The cited reference listed product (see B.3., above) is a lyophilized formulation. The reason for citing this products: is unclear since this is a New Drug Application rather than a

Generic Application. It may be that the reference drug application (NDA 20-036) contains the clinical data that apply to this application.

D. CONCLUSIONS:

The application is recommended for approval on the basis of sterility assurance.

Paul Stinavage, Ph.D.

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Original NDA 21-113 CC:

HFD-510/R. Hedin/S. Markofsky HFD-805/Consult File/Stinavage

Drafted by: P. Stinavage, 13 April 1999

R/D initialed by P. Cooney

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# THIS SECTION WAS DETERMINED NOT TO BE RELEASABLE

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DEPARTMENT OF HEALTH AND HUMAN SERVICES PUBLIC HEALTH SERVICE FOOD AND DRUG ADMINISTRATION			REQUEST FOR CONSULTATION			
, Division/Office) HFD-160 Attn: Peter Cooney				FROM: HFD-510		
DATE March 22, 1999	IND NO.	NDA NO. 21-113		TYPE OF DOCUMENT	DATE OF DOCUMENT February 26, 1999	
NAME OF DRUG pamidronate disodium Inj.		PRIORITY CONSIDERATION S		CLASSIFICATION OF DRUG	DESIRED COMPLETION DATE August 2, 1999	
NAME OF FIRM Bedford Laboratories						
REASON FOR REQUEST						
I. GENERAL						
□ NEW PROTOCOL □ PROGRESS REPORT □ NEW CORRESPONDENCE □ DRUG ADVERTISING □ ADVERSE REACTION REPORT MANUFACTURINGCHANGE/ADDITION □ MEETING PLANNED BY		□ PRE-NDA MEETING □ END OF PHASE II MEETING □ RESUBMISSION □ SAFETY/EFFICACY □ PAPER NDA □ CONTROL SUPPLEMENT		□ RESPONSE TO DEFICIENCY LETTER  □ FINAL PRINTED LABELING □ LABELING REVISION □ ORIGINAL NEW CORRESPONDENCE □ FORMULATIVE REVIEW □ OTHER (SPECIFY BELOW)		
II. BIOMETRICS						
STATISTICAL EVALUATION BRANCH				STATISTICAL APPLICATION BRANCH		
□ TYPE A OR B NDA REVIEW □ END OF PHASE II MEETING □ CONTROLLED STUDIES □ PROTOCOL REVIEW □ OTHER				□ CHEMISTRY REVIEW □ PHARMACOLOGY □ BIOPHARMACEUTICS □ OTHER		
III. BIOPHARMACEUTICS						
□ DISSOLUTION □ BIOAVAILABILTY STUDIES □ PHASE IV STUDIES				□ DEFICIENCY LETTER RESPONSE □ PROTOCOL-BIOPHARMACEUTICS □ IN-VIVO WAIVER REQUEST		
IV. DRUG EXPERIENCE						
□ PHASE IV SURVEILLANCE/EPIDEMIOLOGY PROTOCOL □ PRUG USE e.g. POPULATION EXPOSURE, □ SOCIATED DIAGNOSES □ CASE REPORTS OF SPECIFIC REACTIONS(List below) □ COMPARATIVE RISK ASSESSMENT ON GENERIC DRUG GROUP						
V. SCIENTIFIC IN				INVESTIGATIONS \	d history	
□ CLINICAL				PRECLINICAL 27		
COMMENTS/SPECIAL INSTRUCTIONS: Please review the attached microbiology section of a new ADA submitted by Bedford Laboratories.  Dr. Sheldon Markofsky is the reviewing chemist, 827-6383.  Mr. Randy Hedin is the CSO, 827-6382.  cc:						
SIGNATURE OF REQUESTER				METHOD OF DELIVERY (Check one)  OX MAIL HAND		
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